

TABLE 6

Test Organisms	Log Reduction of Microorganism After							
	Log of Initial Counts		6 Hr		24 Hr		Day 7	
	Form. E	Form. F	Form. E	Form. F	Form. E	Form. F	Form. E	Form. F
<i>S. aureus</i>	6.1	6.2	0.8	1.7	3.7	5.0	5.1	5.3
<i>P. aeruginosa</i>	6.3	6.1	5.3	5.1	5.3	5.1	5.3	5.1
<i>E. coli</i>	6.0	6.2	4.7	5.2	5.0	5.2	5.0	5.2
<i>C. albicans</i>	6.1	6.0	N/A	N/A	N/A	N/A	5.1	5.0
<i>A. niger</i>	5.5	6.1	N/A	N/A	N/A	N/A	2.3	2.0

Both formulations E and F are projected to pass Ph. Eur. B preservative efficacy requirements.

The invention has been described by reference to certain preferred embodiments; however, it should be understood that it may be embodied in other specific forms or variations thereof without departing from its spirit or essential characteristics. The embodiments described above are therefore considered to be illustrative in all respects and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description.

What is claimed is:

1. A preserved, aqueous pharmaceutical solution composition suitable for topical ophthalmic, otic or nasal use comprising a cationic drug, a cationic preservative, and a sulfonated styrene/maleic anhydride copolymer, wherein the drug is selected from the group consisting of betaxolol; levobetaxolol; ciprofloxacin; olopatadine; and their pharmaceutically acceptable salts.

2. The composition of claim 1 wherein the sulfonated styrene/maleic anhydride copolymer has a molecular weight from 5000 to 100,000.

3. The composition of claim 1 wherein the composition comprises from 0.1 to 10% of the sulfonated styrene/maleic anhydride copolymer.

4. The composition of claim 3 wherein the composition comprises from 1 to 5% of the sulfonated styrene/maleic anhydride copolymer.

5. The composition of claim 4 wherein the composition comprises from 2 to 4% of the sulfonated styrene/maleic anhydride copolymer.

6. The composition of claim 1 wherein the cationic preservative is a quaternary ammonium compound.

7. The composition of claim 6 wherein the cationic preservative is selected from the group consisting of benzalkonium chloride; benzododecinium bromide; and polyquaternium-1.

8. The composition of claim 7 wherein the composition comprises from 0.001 to 0.03% of the cationic preservative.

9. The composition of claim 8 wherein the composition comprises from 0.001 to 0.015% of the cationic preservative.

10. The composition of claim 1 wherein the composition is a topically administrable ophthalmic composition.

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